

Special Issue

New Perspectives in Hematopoietic Stem Cell and Leukemia

Message from the Guest Editors

The hematopoietic system is constantly controlled by the combinatorial action of growth factors, cytokines, and transcription factors, which regulate cell type diversification. It is generated from the hematopoietic stem cells (HSCs) undergoing constant self-renewal, commitment, and differentiation. Despite current advances, how these environmental cues determine stem cell fate remains to be ascertained. In contrast, the dysregulation of these elements and their interactions can lead to the appearance of abnormal cells at different hematopoietic compartments, mainly originating from the transformation of HSCs to cancer stem cells. This Special Issue aims to highlight the latest advances in understanding normal hematopoiesis regulation and leukemogenesis, current knowledge, and future perspectives regarding emergent therapeutics. Reviews or articles on molecular regulation, mechanisms of cell transformation, therapy, clonal hematopoiesis, and applications for future targeted therapies will be welcome.

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